Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Purpose: When all nuclear production was halted in 1989, Special Nuclear Materials (SNM) were left in place without any handling or repackaging pending resumption of nuclear operations. The Rocky Flats production mission was formally terminated in 1992 such that routine production operations were no longer planned. Resumption efforts have been undertaken in several buildings to begin processing, stabilizing and repackaging the SNM to make it safe to store, handle and ship. This effort will continue through approximately 2002. As the effort to stabilize material progresses and as buildings are no longer required to process and store SNM, it is necessary to deactivate and decommission these nuclear and support facilities to further minimize risk, reduce mortgage costs and to fulfill the site closure mission. The first time that significant nuclear facilities were no longer required for their SNM mission was in FY97. All buildings not required for SNM, waste storage, and support, will be deactivated, decontaminated, dismantled and demolished. When demolished, soils under and around buildings will be remediated.

Specifically, this project is to accomplish a transition of the 771/774 Cluster from an operating nuclear facility and support facilities to a closed and remedied site. The most efficient way to execute this strategy to plan the effort as a "closure project," and not a "deactivation project" followed by a "decommissioning project." This means there will be overlaps between major activities in order to maintain a seamless transition towards closure. Most of this cluster's work scope under the Liquid Stabilization program (PBS 10)is complete, only operation of the bottlebox in B774 remains. Tap and Drain and Removal of liquid process piping will be conducted as a Deactivation activity; tank removal will be part of the applicable Decommissioning workset. Liquids and sludges removed will be processed through the bottlebox or transferred to Building 371 to be processed through the Caustic Waste Treatment System. SNM holdup removal will be conducted to support the closure of the MAA, the eventual closure of the Protected Area, and in consideration of the operating schedule of the Plutonium Stabilization and Packaging System. Residue drums have been removed where possible and legacy and newly generated waste drums will be kept in Building 771/774 for the minimum possible time. The goal is to reduce the material at risk and therefore the mortgage costs of operating the cluster. Significant savings can be realized once there is no longer a requirement for a Material Access Area. Another significant drop in costs comes when criticality safety and LCO surveillances are no longer required; this is not possible until after completion of most of the stripout Decommissioning activities.

During this transition from an operating SNM facility to a closed site, there are six phased activities. Some of these phases overlap. They are listed below and described in the Definition of Scope and Technical Approach sections:

Activity/Primary Function(s):

Facility Landlord Functions
SNM Removal Operations
Deactivation
Decommissioning
Closure
Remediate/Contain High Risk IHSS

Project Description Narratives

The 771/774 cluster has been divided into 97 discrete work sets for planning and estimating the D&D of this cluster. A work set can be a glovebox, a room, a utility system, an office trailer, or the actual building structure of Building 771/774. For each equipment and utility work set the scope has been defined and a detailed bottoms-up cost estimate has been prepared. Expertise from Hanford was combined with RFETS expertise to develop these estimates. RFETS expertise was based on the D&D portions of Buildings 707 and 779 and operations/maintenance/construction experience in Building 771. The scope for each equipment set was subdivided into 40 activities that are common to the removal of equipment from Building 771. These 40 activities represent the lowest level of discrete quantifiable tasks. Units of work were established to allow objective quantified counts of the items involved in each task. Standard resource and duration estimates were then prepared for each unit using recent experience from D&D in Building 707 and the expertise of Building 771 and Building 779 personnel. The combination of activities and costs provided a bottoms-up estimate of the activities needed and parametrics for calculating consistent cost and duration. The cost estimate for the demolition of the Building 771/774 and support building structures was based on the Kaiser-Hill Facility Disposition cost model, rev 0.

Scope: This PBS includes the closure of the 771/774 and 790 clusters, and remediation of the soils to the site closure standard as identified in RFCA. This project includes six major activities; SNM removal, deactivation, decommissioning, remediating/containing high risk IHSSs, and closure. Once this cluster is closed this area will be covered with the 700 Area cap.

The 771/774 cluster includes the following buildings: 771, 774, 714, 714A, 714B, 715, 715A, 716, 717, 772, 772A, 773, 774A, 774B, 775, 770, 770B, 771B, T-230, T771A, T771B, T771C, T771D, T771E, T771F, T771G, T771H, T771J, T771K, and T771L and tanks 173, 174, 175, 176, 179, 180, 182, 183, 184, 185, 192, 193, 194, 195, 292, and 293. The 790 cluster only includes Building 790.

Facility Landlord Functions:
1. Conduct Limiting Conditions for Operations (LCO) surveillance's on Vital Safety Systems (VSS) as required by the building specific authorization basis document (i.e. fire systems, criticality alarm systems, HVAC systems).
2. Conduct routine compliance surveillance's/inspections on RCRA units, security systems, radiological control requirements, industrial safety, etc.
3. Conduct baseline maintenance activities on VSS, facility support systems/structures, environmental compliance/ waste management support systems, security systems, etc.
4. Provide operations management and technical support for building baseline activities and in support of risk reduction activities.
5. Conduct Authorization Basis activities to ensure there are adequate controls for hazards associated with storage of material and operations to be performed in the building. These activities include developing and maintaining the applicable Safety Analysis Reports, Basis for Operations, or Basis for Interim Operations documents.

SNM Removal Operations :
The scope of this activity involves the removal of sufficient Category I & II SNM holdup from Building 771 in order to remove the Material Access Area security requirements and proceed with Deactivation and Decommissioning. Specific quantities and types of materials are available in classified building-specific inventory reports. SNM holdup removal after the MAA is closed is part of Decommissioning.

Deactivation:
The scope of the deactivation phase includes the planning and physical work activities associated with; tap and drain, process piping removal, and sludge removal from the tanks in Building 774. This scope also includes all of the prerequisite planning, project management and characterization

Project Description Narratives

activities to support the deactivation program (i.e. engineering, planning, scheduling, industrial safety, criticality and nuclear safety, regulatory programs).

Decommissioning:
The scope of the decommissioning phase includes the planning and physical activities to decontaminate, dismantle and demolish building clusters in preparation for IHSS remediation and final closure. This scope also includes all of the prerequisite planning, project management and characterization activities to support the decommissioning program (i.e. engineering, planning, scheduling, industrial safety, criticality and nuclear safety, regulatory programs).

Closure:
The scope of this activity includes the final close-out of the cluster site upon completion of decommissioning and IHSS remediation, and includes the regulatory and project close-out documentation required by the Department of Energy and the Rocky Flats Cleanup Agreement (RFCA).

Remediate/Contain High Risk IHSS:
The scope of this activity includes remediation, excavation, or containment as appropriate to close the High Risk IHSSs in this cluster. 4 IHSSs have been remediated to date. Typically remediation will include excavation and treatment such as thermal desorption and/or containment could include capping or closure in place.

The High Risk IHSSs include:
Solvent spill west of B730 (IHSS 118.1 and 132)
Rad site 700 (IHSS 163.1)
Americium Slab (IHSS 163.2)
Concrete Tanks (IHSS 146.1 and 146.6)
Abandoned Sump near B774 (IHSS 215)
Old outfall - B771 (IHSS 143)
Under Building Contamination

The remediation/containment of these IHSS's can be broken in to three activities
Planning/Authorization
Remediation/Disposition
Final Regulatory Approval

Technical Approach: The overall closure strategy is to; consider safety first, maintain compliance, maintain the facility (minimizing upgrades), create a closure mentality, seek acceleration opportunities, and improve productivity. Improving productivity will be done by; utilizing better equipment, planning better, maximizing the use of resources, forcing accountability for quality and schedule, and continuously seeking process improvements.

The path to closure for this cluster will go through the following steps: major hazard reduction; equipment dismantlement; building decontamination;

Project Description Narratives

utility shutdown; building demolition and site remediation. These steps will not be completed sequentially, rather some activities will be conducted in parellel to promote acceleration. The specific strategies for each of the major activties is as follows.

Facility Landlord Functions:
The strategy for landlord actvities is to maintain a safe, compliant, and operable building in support of Defense Nuclear Facility Safet Board (DNFSB) and Rocky Flats Cleanup Agreement (RFCA) milestones, performance measures and the closure project basleine. Effective implementation of the major landlord sub-activities including; compliance surveillances, maintenance, operations technical support, operations management, and authorization basis maintenance is essential to completing pur mission. Compliance surveillances will be conducted commensurate with the risk, as material is removed the number of required surveys and inspections will also be reduced. The goals of the maintenance program is to; maintain systems creditted in the authorization basis, eliminate any major improvements except those needed to support mission work (such as Supply Breathing Air upgrades), and all other systems will be run to failure. Although the hazards are being greatly reduced, some areas of landlord actvities such as operations management and operations technical support will increase slightly as we transition into a 20 hour per day, 7 days a week work schedule.

SNM Removal Operations:
The strategy for SNM removal operations is to complete the eight required actions necessary to close the Material Access Area, as approved by DOE. The eight actions are to: (1) remove all existing residue and waste drums and containers from the building; (2) cleanup gloveboxes and process lines to remove in-process material from previous processing operations to achieve "inventory-like" conditions; (3) complete holdup characterization measurements for all gloveboxes, pipes, and ducts to quantify holdup that is located in expected locations; (4) remove the high concentration of SNM from the second floor FU2B plenum; (5) complete wall-to-wall holdup scans to ensure that no SNM is located in unexpected locations; (6) evaluate any holdup location that remain after cleanup and the task times required to obtain target quantities of SNM; (7) implement surveillance activities by Personnel Security Assurance Program (PSAP) accumulation of Category I quantities of SNM; and (8) conduct appropriate "walkdowns" of building to insure removal or adequate storage/control of classified material.

Deactivation
The deactivation strategy is to reduce the material at risk, therby allowing the mortgage cost for the building to be reduced. A significant portion of this work scope has already been completed; residues have been removed, 2000 square feet of Benelex has been removed, and cold glovebox line 30 has been removed. The only remaining deactivation activities are the draining and removing the process piping from the 37 liquid systems in Building 771 and 1 system in Building 774 that must be deactivated. The major process steps for each system includes; solution system identification, IWCP package development, hazards assessment, work planning/hazard control identification, system vent/purge/draining, system pipe removal/size reduction/packagaing, and feedback for continual process improvement. The sequence for scheduling the draining and process piping removal for each system was based on their risk (actinide, reagent, leaking, or hydrogen buildup) and how their interacted and supported the D&D of the equipment sets.

Decontamination and Decommissioning (D&D):
The strategy was to first define the building into 97 work sets. These worksets consist of a room, a group of equipment, or a separate piece of

Project Description Narratives

equipment, or the building struture, and are given endpoitns. From this point on planning is done on a workset-by-workset basis. Using the endpoints, tasks are drafted for the activities to be performed. These tasks are evaluated based on costs and risks in order to finalize the planned tasks. Based on the characterization needs identified in the Reconnaissance Level Characterization Report.

The sets were then sequenced in following general order, equipment sets, utiltity sets, support buildings, and the Building 771/774 building structure. The equipment sets were prioritized taking into account the following factors; easier ones first to learn lessons, gaining early experience on tanks and gloveboxes, creating operational space for future work, annual budget restrictions, minimizing interfaces with other work, and decentralizing congestion to minimize operational impacts.

The actual decommission work will take advantages of advances in tooling and containment systems to increase the protection to the workers while performin size reduction work activities. The tooling used will be designed to distance the worker from the cutting portion of the tool to avoid injuries. Containment systems will also be designed to distance the workers from the contaminated equipment. This will provide added protection to the workers and decrease the resources expended to purchase protective clothing and to manage the secondary waste generated from protective clothing. The containment systems planned to be used in this project will allow workers to wear PAPRS, and greatly reduce supplied breathing air needs.

Cluster Closure and IHSS Remediation
This activity includes all environmental restoration activities relating to cluster site closure. The Individual Hazardous Substance Sites (IHSSs) are placed into 2 categories: High and Low. High hazard IHSSs (I.e., IHSS 118.1) will be remedied, excavated or contained, and low hazard IHSSs will undergo administrative close-out called the No Further Action process. The remediation/containment of IHSSs can be broken into three activities; Planning/authorization, Remediation/disposition, Final regulatory approval.

Project Status in FY 2006:

This project will be completed.

Post-2006 Project Scope:

No activities are currrently scheduled to occur after 2006 for this project.

Project End State

All buildings will be demolished, and the under building soils and IHSS remediated to site closure standards as identified in RFCA. Building 771/774 foundation will remain intact at the completion of this project.

Cost Baseline Comments:

Cost estimates are based on assumptions and data developed by the technical groups that have responsibility for managing the work. To the extent practical, all cost estimates are Activity-Based Costs (ABC) and tied directly to a defined and detailed work scope. The estimates are developed at the activity level and are further divided into line items. Line items represent individual resource contributions to activities and are the lowest level of

Project Description Narratives

input to the planning system. Once the cost estimate is developed,
each activity is evaluated for cost, technical and schedule risk and the appropriate contingency is determined. Detailed estimates and the basis of estimates (BOEs) for the 2006 Closure Plan are available at the Site.

Safety & Health Hazards:

A number of hazards are already known to exist is the Building 771/774 facility. The predominant hazard is radiological contamination. Building 771/774 was used for the recovery of plutonium between 1953 and 1989. During that period, a number of leaks, spills, and fire in 1957 have contaminated virtually the entire facility at one time or another. It has always been standard operating practice to decontaminate an area after spills, leaks or fire, although the level of decontamination is often not known. Measuring these levels today, after layers of paint and in the presence of elevated background radiation levels, would reveal only the hot spots. It will therefore be assumed that an area is contaminated, unless otherwise known and verified. Two areas in Building 771 are of special concern. Room 141, a pump room, experienced repeated leaks of nitric acid contaminated with plutonium. The room became so contaminated that about 20 years ago the door to the room was welded shut, and the all piping in or out of the room was sealed. No one has entered the room since that time. Another area of concern is the Line 7A fluorinator, which has historically been a high radiation area. A number of chemicals have been used in Building 771, both for processing and in the analytical labs. Most of these chemicals are well documented and are in relatively small quantities. One notable exception is hydrofluoric acid, which was located in a system that is operational empty, but has not been flushed. Beryllium is known to be left from past operations, although in a limited number of gloveboxes. Machine, hydraulic, and lubricating oil and greases exist in various machines, gearboxes, and equipment. PCBs are also likely to be encountered in transformers and electrical components, paint, roofing material and adhesives. Due to the age of the facilities, considerable amounts of asbestos (both radioactively contaminated and non-contaminated) are present in insulation and building materials. Lead is also present in the glovebox shielding, and some of the building materials. Building 774 has much of the same operational history as Building 771. Radiological hazards will predominate, followed closely by the chemical hazards. Although radiological contamination can be expected in the processing sections of Building 774, the levels should be lower than those experienced in Building 771.

Safety & Health Work Performance:

This project will be completed within the RFETS Safety and Health Program and within the controls and authorization basis documents defined above to ensure the safety and health of the worker, public and the environment. All work will be perfromed in accordance with the Integrated Work Control Process (IWCP) manual. RFETS has implemented an integrated safety management system consisting of the following elements: radiological safety, criticality safety, emergency management, fire safety, industrial hygiene, nuclear safety, occupational medicine, occupational safety, safeguards and security, safety integration, performance oversight, and standards management. RFETS provides site wide infrastructure programs for each functional area to establish consistent safety standards and support for this project. Safety and health success results from the efficient and effective implementation of these programs. This project is responsible for ensuring that the necessary elements of the safety and health programs are incorporated into the specific project plans and implementing documents, and that an appropriate Readiness Determination and Safety Evaluation Screen (SES)/Unreviewed Safety Question Determination (USQD) have been performed.

PBS Comments:

The Case 5a 10-year plan is constrained by funding allocations. This is because higher priority risk reduction activities are consuming all available funds. The contractor intends to accelerate the closure of B771/774, with a goal to complete closure planning by the middle of FY98 and then begin

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Project Description Narratives

full-scale Deactivation/Decommissioning activities in FY99.

Baseline Validation Narrative:

Although the 2006 Closure Plan has not been officially validated, it has undergone a high level review by Rocky Flats Field Office (RFFO) and Headquarter personnel. Current independent validation efforts include the following: 1) RFFO has contracted an independent firm to perform a baseline confidence review of the 2006 Closure Plan by the end of FY99, and 2) the Office of Field Management (FM) has contracted a big-five accounting firm to validate the 2006 Closure Plan.

In addition to the 2006 Closure Plan validation efforts, results/recommendations from several previous baseline validation efforts were used in the development of the 2006 Closure Plan. These validations included: 1) The U.S. Army Corps of Engineers (USACE) performed a validation of the Rocky Flats Ten Year Plan in FY97/FY98, 2) Kaiser-Hill contracted Price Waterhouse Coopers, LLP to conduct and independent validation effort of the 2010 Closure Project Baseline that concluded in May of FY99, and 3) Kaiser-Hill engaged Arthur Andersen, LLP to conduct a schedule and cost risk review of the 2010 Closure Project Baseline.

General PBS Information

Project Validated? **Date Validated:**

Has Headquarters reviewed and approved project? No

Date Project was Added: 12/1/1997

Baseline Submission Date:

FEDPLAN Project? Yes

Drivers:

CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
Y	Y	Y	N	N	Y	Y	Y

Project Identification Information

DOE Project Manager: Jessie Roberson

DOE Project Manager Phone Number: 303-966-2263

DOE Project Manager Fax Number: 303-966-4775

DOE Project Manager e-mail address: ten.year.plan@rfets.gov

Is this a High Visibility Project (Y/N): Y

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	255,088	0	255,088	21,638	21,638	18,597	18,597	41,061	32,903	39,977	39,220	33,290	24,403	3,999	0
PBS Baseline (constant 1999 dollars)	243,925	0	243,925	21,638	21,638	18,597	18,597	41,061	32,038	38,125	36,634	30,456	21,866	3,510	0
PBS EM Baseline (current year dollars)	255,088	0	255,088	21,638	21,638	18,597	18,597	41,061	32,903	39,977	39,220	33,290	24,403	3,999	0
PBS EM Baseline (constant 1999 dollars)	243,925	0	243,925	21,638	21,638	18,597	18,597	41,061	32,038	38,125	36,634	30,456	21,866	3,510	0

	2007	2008	2009	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 9/30/2006

Current Projected End Date of Project: 8/18/2005

Explanation of Project Completion Date Difference (if applicable):

Scope Deletion

Efficiencies

New Scope

New Landlord scope includes services such as Nuclear Safety, Radiological Engineering, Laundry, Facility Management Overhead Support, etc. that were transferred into this PBS from other PBSs.

Cost Growth

The cost estimate for decommissioning has been revised based on a new bottoms up model that incorporates building walk-down information as well as data from throughout the DOE complex.

Science & Technology

Other

The scope of work and end state conditions for the 2006 Plan are similar to the current 2010 Baseline, with a four-year acceleration and a reduction in cost being the two most significant differences. The bottom-up estimate for the 2006 Plan is a $1.65 billion improvement over the comparable activity-based bottoms-up detail estimate for 2010.

To close the Site four years earlier than the current 2010 Baseline requires a strategically different approach. The two key principles followed in preparing the 2006 Baseline were: 1) safely reducing the urgent risks first, and 2) performing work in a sequence that reduces or eliminates operations, maintenance and security costs (often referred to as - mortgage costs) as early as possible. Key to the 2006 Baseline approach is early closure of the secured Protected Area. Closing the Protected Area as soon as possible means that the high security and maintenance costs for this area can be redeployed to accelerate other closure activities. In addition, D&D and SNM risk reduction activities will be performed simultaneously rather than sequentially, supporting both the risk reduction and mortgage reduction principles. The D&D of non- and lower-contaminated facilities and most environmental remediation work will be deferred until later in the project to allow resources to be focused in the areas that result in the greatest reduction in risks and mortgage costs.

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Project Reconciliation

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	190,354	**Actual 1997 Cost:**	21,638	**Actual 1998 Cost:**	18,597
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	150,119	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**			4,053
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	154,172				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):	6,661	Rebaselining due to acceleration. Efficiencies dollar estimate is not of audit quality.
Cost Associated with New Scope (+):		
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	147,511	
Additional Amount to Reconcile (+):	56,179	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	**203,690**	

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Drain 11 and remove 12 B771 process piping systems.			9/30/1999						Y		
Complete 4 D&D work sets.			9/30/1999						Y		
IP-303 Drain 8 Add'l Actinide System in B771	RF-0319		9/28/2000		9/28/2000			Y			
IP-304 Complete Remove All Liquids In B771	RF-0324		12/28/2001		12/28/2001			Y			
FY99-T3 Drain 6 Systems In B771 By 9/30/99	RF-0325		9/30/1999	9/30/1999	9/30/1999		Y				
IP-302 Drain 6 Actinide System B771 by 9/30/99	RF-0330		9/27/1999		9/27/1999			Y			

Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats**

Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site**

HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Cmpl B771/774 Cluster Demo	RF-0413		9/20/2004		9/20/2004						
B771/774 Cluster Complete IHSS/UBC Remediation	RF-0433		7/7/2005		7/7/2005						
Complete PBD 018 - B771/774 Cluster Closure Proj	RF-OTHE-18		8/18/2005		8/18/2005					Y	
PBD 018 Project Start			10/1/1997								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Drain 11 and remove 12 B771 process piping systems.											
Complete 4 D&D work sets.											
IP-303 Drain 8 Add'l Actinide System in B771	RF-0319										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
IP-304 Complete Remove All Liquids In B771	RF-0324										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
FY99-T3 Drain 6 Systems In B771 By 9/30/99	RF-0325										Rocky Flats Clean-up Agreement (RFCAs) Milestones
IP-302 Drain 6 Actinide System B771 by 9/30/99	RF-0330										Defense Nuclear Facility Safety Board (DNFSBs) Milestones
Cmpl B771/774 Cluster Demo	RF-0413	Y									Kaiser Hill Internal (KHIs) Milestones
B771/774 Cluster Complete IHSS/UBC Remediation	RF-0433	Y									Kaiser Hill Internal (KHIs) Milestones
Complete PBD 018 - B771/774 Cluster Closure Proj	RF-OTHE-18	Y			Y	Y					Kaiser Hill Internal (KHIs) Milestones
PBD 018 Project Start				Y							PBD 018 Project Start

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planne 20(
RS														
Assess.	NR	22.00	0.00	22.00	5.00				2.00				19.00	1.(
RS														
Cleanup	NR	22.00	0.00	22.00	5.00									10.(
Fac.														
Decom.- Assess.	NF	50.00	0.00	50.00					35.00				15.00	
Fac.														
Decom- Cleanup	NF	50.00	0.00	50.00										50.(
Tech.														
Deployed	Ntd	12.00	0.00	12.00					4.00	8.00				

Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035
RS													
Assess.	NR	1.00											
RS													
Cleanup	NR	10.00	12.00										
Fac.													
Decom.- Assess.	NF												
Fac.													
Decom- Cleanup	NF	50.00											
Tech.													
Deployed	Ntd												

Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats**

Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site**

HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total
RS										
Assess.	NR								1.00	27.00
RS										
Cleanup	NR									27.00
Fac.										
Decom.- Assess.	NF								2.00	50.00
Fac.										
Decom- Cleanup	NF									50.00
Tech.										
Deployed	Ntd								4.00	12.00

Release Sites

Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
RFTS	0930		PAC 700-1108 \ Bowman's Pond	/	1999		9/30/1999	2005				N		
RFTS	3051		IHSS 124.1 \ Rad Liq. Waste Tk. 66	/	1996		9/30/1996	1996		9/30/1996		N	Approved	
RFTS	3052		IHSS 124.2 \ Rad Liq. Waste Tk. 67	/	1996		9/30/1996	1996		9/30/1996		N	Approved	
RFTS	3053		IHSS 124.3 \ Rad Liq. Waste Tk. 68	/	1996		9/30/1996	1996		9/30/1996		N	Approved	
RFTS	3054		IHSS 125 \ Holding Tk. 66	/	1996		9/30/1996	1996		9/30/1996		N	Approved	
RFTS	3055		IHSS 126.1 \ Process Waste Tks. - Westermost	/	2003			2004				N	Approved	
RFTS	3056		IHSS 126.2 \ Process Waste Tks. - Eastermost	/	2003			2004				N	Approved	
RFTS	3062		IHSS 132 \ Rad Site 700 Area #4	/	1996		9/30/1996	1996		9/30/1996		N	Approved	
RFTS	3074		IHSS 139.1(N) \ Hydroxide Tank, KOHm NaOH condensate	/	1999			2005				N	Approved	
RFTS	3076		IHSS 139.2 \ HF Acid Tank	/	2003			2005				N		

Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats**

Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site**

HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Release Sites

Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
RFTS	3095		IHSS 146.1 \ Concrete Tanks	/	2003			2004				N	Approved	
RFTS	3096		IHSS 146.2 \ Concrete Tanks	/	2003			2004				N	Approved	
RFTS	3097		IHSS 146.3 \ Concrete Tanks	/	2003			2004				N	Approved	
RFTS	3098		IHSS 146.4 \ Concrete Tanks	/	2003			2004				N	Approved	
RFTS	3099		IHSS 146.5 \ Concrete Tanks	/	2003			2004				N	Approved	
RFTS	3100		IHSS 146.6 \ Concrete Tanks	/	2003			2004				N	Approved	
RFTS	3106		IHSS 150.1 \ Rad Site N B771	/	2003			2004				N	Approved	
RFTS	3107		IHSS 150.2 (N) \ Rad Site W B 771/776	/	2003			2005				N		
RFTS	3109		IHSS 150.3 \ Rad Site B 771/774	/	2003			2004				N	Approved	
RFTS	3125		IHSS 163.1 \ Rad Site 700 North B774	/	2003			2005				N		
RFTS	3126		IHSS 163.2 \ Americium Slab	/	2003			2005				N		
RFTS	3173		IHSS 215 \ Abandoned Sump near-774 Unit 55.13 T-40	/	2003			2005				N		
RFTS	3309		PAC T-14 \	/	2003			2005				N		
RFTS	3310		PAC T-16 \	/	2003			2005				N		
RFTS	3394		UBC B770 \	/	2004			2005				N		
RFTS	3395		UBC B771 \	/	2003			2005				N		
RFTS	3396		UBC B774 \	/	2003			2005				N		

Facility Decommissioning

Site Code	RSF ID	Change Flag	Description	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
RFTS	0058		771-DT \ DECON TRAILER (+ \			2003						2004				N		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Facility Decommissioning

Site Code	RSF ID	Change Flag	Description	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
			ATTACHMENTS) (W of T771G)															
RFTS	0059		771-S \ 771 STACK	\		1999		4/1/1999				2004				N		
RFTS	0118		S770 \ STORAGE BLDG (N of 770B)	\		1999		4/1/1999				2004				N		
RFTS	0131		Tank 197 \ STORAGE TANK (PROPANE, 18,377 gal; OUT OF SERVICE; SUPPORTED 712 AND 713) (SE of B774, NE of 207) (aka Tank 197)	\		2003						2004				N		
RFTS	0291		712A \ NATURAL GAS BUILDING (712, 713)	\		1999						2004				N		
RFTS	0293		770 \ MAINTENANCE ACTION CENTER/STORAGE	\		2003						2004				N		
RFTS	0294		770B \ CARPENTER SHOP (sign says 771B)	\		2003						2004				N		
RFTS	0295		T771A \ OFFICES	\		2003						2004				N		
RFTS	0296		T771B \ OFFICES	\		2003						2004				N		
RFTS	0297		T771C \ SHOWER/LOCKER (JAJ)	\		2003						2004				N		
RFTS	0298		T771D \ OFFICES	\		2003						2004				N		
RFTS	0299		T771E \ OFFICES	\		2003						2004				N		
RFTS	0300		T771F \ OFFICES	\		2003						2004				N		
RFTS	0301		T771G \ SHOWER TRAILER	\		2003						2004				N		
RFTS	0302		T771H \ OFFICES (JAJ)	\		2003						2004				N		
RFTS	0303		T771J \ OFFICES	\		2003						2004				N		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Facility Decommissioning

Site Code	RSF ID	Change Flag	Description	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
RFTS	0304		T771K \ OFFICES	\		2003						2004				N		
RFTS	0305		T771L \ RESTROOMS	\		2003						2004				N		
RFTS	0410		714 \ HF ACID STORAGE BUILDING	\		1999		4/1/1999				2004				N		
RFTS	0411		714A \ HF GAS STORAGE SHED	\		1999		4/1/1999				2004				N		
RFTS	0412		714B \ EMERGENCV BREATHING AIR BUILDING	\		1999		4/1/1999				2004				N		
RFTS	0413		715 \ EMERGENCY GENERATOR #1 BUILDING (771,774)	\		1999		4/1/1999				2004				N		
RFTS	0414		715A \ EMERGENCY GENERATOR (771)	\		1999						2004				N		
RFTS	0415		716 \ EMERGENCY GENERATOR #2 BUILDING (771,774)	\		1999		4/1/1999				2004				N		
RFTS	0416		717 \ MAGNEHELIC GAUGE BUILDING (NE of 772)	\		1999		4/1/1999				2004				N		
RFTS	0417		771 \ PLUTONIUM RECOVERY FACILITY	\		1999		4/1/1999				2004				N		
RFTS	0418		771C \ NUCLEAR WASTE PACKAGING/DRUM COUNTING FACILITY - ADDITION BETWEEN B771 & B774 ("THE ANNEX")	\		1999		4/1/1999				2004				N		
RFTS	0419		772 \ FLUORINE STORAGE BUILDING	\		1999		4/1/1999				2004				N		
RFTS	0420		772A \ ACID STORAGE	\		1999		4/1/1999				2004				N		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Facility Decommissioning

Site Code	RSF ID	Change Flag	Description	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
RFTS	0421		774 \ LIQUID WASTE TREATMENT PLANT (Units 55 and 56)	\		1999		4/1/1999				2004				N		
RFTS	0422		774A \ STEAM CONDENSATE HOLDING TANK (aka Tank 178, aka 108T)	\		1999		4/1/1999				2004				N		
RFTS	0423		774B \ STEAM CONDENSATE HOLDING TANK (aka Tank 177; aka 107T)	\		1999		4/1/1999				2004				N		
RFTS	0424		775 \ SEWAGE LIFT STATION	\		1999		4/1/1999				2004				N		
RFTS	0427		Tank 173 \ PROPANE STORAGE TANK (E of T770B)	\		1999		4/1/1999				2004				N		
RFTS	0428		Tank 174 \ LIQUID ARGON STORAGE TANK (N of 771C)	\		1999		4/1/1999				2004				N		
RFTS	0429		Tank 175 \ LIQUID NITROGEN STORAGE TANK (N of 771C)	\		1999		4/1/1999				2004				N		
RFTS	0430		Tank 176 \ NaOH STORAGE TANK (N of B774; aka 774T)	\		1999		4/1/1999				2004				N		
RFTS	0431		Tank 179 \ PROPANE STORAGE TANK (SE of T771G)	\		1999		4/1/1999				2004				N		
RFTS	0432		Tank 180 \ COOLING WATER STORAGE TANK (S of 774)	\		1999		4/1/1999				2004				N		
RFTS	0433		Tank 182 \ UNDERGROUND CONCRETE TANK #66 (OUT OF SERVICE) (UST 51) (S of	\		1999		4/1/1999				2004				N		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Facility Decommissioning

Site Code	RSF ID	Change Flag	Description	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
			774) (aka T-16; see also Tank 183) (RCRA Unit 55.14)															
RFTS	0434		Tank 183 \ UNDERGROUND CONCRETE TANK #67 (OUT OF SERVICE) (UST 52) (S of 774) (aka T-16; see also Tank 182) (RCRA Unit 55.15)	\		1999		4/1/1999				2004				N		
RFTS	0435		Tank 184 \ UNDERGROUND CONCRETE TANK #68 (OUT OF SERVICE) (UST 53) (S of 774) (aka T-14) (RCRA Unit 55.16)	\		1999		4/1/1999				2004				N		
RFTS	0436		Tank 185 \ KOH STORAGE TANK (SE of 714)	\		1999		4/1/1999				2004				N		
RFTS	0437		Tank 192 \ UNDERGROUND STORAGE TANK (DIESEL) (foamed in place) (UST 20) (W of 714A)	\		1999		4/1/1999				2004				N		
RFTS	0438		Tank 193 \ UNDERGROUND STORAGE TANK (DIESEL) (UST 21) (foamed in place) (S of 771)	\		1999		4/1/1999				2004				N		
RFTS	0439		Tank 194 \ HYDROFLUORIC ACID STORAGE TANK D-44 (E of 714A)	\		1999		4/1/1999				2004				N		
RFTS	0440		Tank 195 \ HYDROFLUORIC ACID STORAGE TANK D-45 (NE of 714A)	\		1999		4/1/1999				2004				N		
RFTS	0441		Tank 292 \ UNDERGROUND FIREWATER COLLECTION	\		1999		4/1/1999				2004				N		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Facility Decommissioning

Site Code	RSF ID	Change Flag	Description	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
			TANK (UST 38) (N of 728)															
RFTS	0442		Tank 293 \ UNDERGROUND FIREWATER COLLECTION TANK (UST 39) (N of 728)	\		1999		4/1/1999				2004				N		
RFTS	0443		TK-21 \ ABOVEGROUND STORAGE TANK (#2 DIESEL) (replacement for UST 21/Tank 193) (S of 771, SE of 715)	\		1999		4/1/1999				2004				N		

Technology Needs

Site Need Code: RF-DD01

Site Need Name: Improved Decommissioning Characterization for Distinguishing Between Transuranic and Low-Levels of Contamination

Focus Area Work Package ID: DD-05 **Focus Area Work Package:** Material Recycle and Release

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Internal Duct Characterization System		
Internal Duct Characterization System		
Internal Duct Characterization System		
Small Pipe Characterization System (SPCS)		
Small Pipe Characterization System (SPCS)		
Small Pipe Characterization System (SPCS)		
Pipe Explorer (TM) System		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Needs

Pipe Explorer (TM) System

Pipe Explorer (TM) System

Portable X-Ray, K-Edge Heavy Metal Detector

Portable X-Ray, K-Edge Heavy Metal Detector

Portable X-Ray, K-Edge Heavy Metal Detector

Gamma Ray Imaging System

Gamma Ray Imaging System

Gamma Ray Imaging System

Pipe Crawler Internal Piping Characterization System

Pipe Crawler Internal Piping Characterization System

Pipe Crawler Internal Piping Characterization System

Gamma Cam (TM) Radiation Imaging System

Gamma Cam (TM) Radiation Imaging System

Gamma Cam (TM) Radiation Imaging System

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

In Situ Object Counting System

In Situ Object Counting System

In Situ Object Counting System

Decommissioning In-Situ Plutonium Inventory Monitor (DISPIM)

Decommissioning In-Situ Plutonium Inventory Monitor (DISPIM)

Decommissioning In-Situ Plutonium Inventory Monitor (DISPIM)

Electret Ion Chambers

Technology Needs

Electret Ion Chambers

Electret Ion Chambers

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Site Need Code: RF-DD02

Site Need Name: High Speed, Integrated Characterization System for (1) Radioactive, (2) Hazardous, and (3) Toxic Contamination

Focus Area Work Package ID: DD-05 **Focus Area Work Package:** Material Recycle and Release

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Three Dimensional, Integrated Characterization and Archiving System (3D-ICAS)		
Three Dimensional, Integrated Characterization and Archiving System (3D-ICAS)		
Three Dimensional, Integrated Characterization and Archiving System (3D-ICAS)		
Gamma Ray Imaging System		
Gamma Ray Imaging System		
Gamma Ray Imaging System		
Mobile Automated Characterization System		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Needs

Mobile Automated Characterization System

Mobile Automated Characterization System

Gamma Cam (TM) Radiation Imaging System

Gamma Cam (TM) Radiation Imaging System

Gamma Cam (TM) Radiation Imaging System

Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)

Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)

Surface Contamination Monitor and Survey Information Management System (SCM/SIMS)

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

Indoor Radiation Mapping Using Laser Assisted Ranging and Data System

In Situ Object Counting System

In Situ Object Counting System

In Situ Object Counting System

Decommissioning In-Situ Plutonium Inventory Monitor (DISPIM)

Decommissioning In-Situ Plutonium Inventory Monitor (DISPIM)

Decommissioning In-Situ Plutonium Inventory Monitor (DISPIM)

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Needs

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Site Need Code: RF-DD03

Site Need Name: Improved Interior Airborne Particulates Control

Focus Area Work Package ID: DD-12 **Focus Area Work Package:** D&D of Weapons Components Fabrication Facilities

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Reactor Surface Contamination Stabilization		
Reactor Surface Contamination Stabilization		
Concrete Dust Supression System		
Concrete Dust Supression System		
Strippable Coatings and Fixatives		
Strippable Coatings and Fixatives		

Technology Needs

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Site Need Code: RF-DD04

Site Need Name: Improved Measurement Techniques for Free Release of Property and Salvageable Equipment Contaminated with Radionuclides

Focus Area Work Package ID: DD-13 **Focus Area Work Package:** Oversized Metallic TRU Waste Disposition

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate

Technology Needs

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Site Need Code: RF-DD07

Site Need Name: Improved Disposition of Raschig-Ring Tanks

Focus Area Work Package ID: DD-12 **Focus Area Work Package:** D&D of Weapons Components Fabrication Facilities

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate

Technology Needs

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Site Need Code: RF-DD08

Site Need Name: Improved Worker Protection Clothing and Systems

Focus Area Work Package ID: DD-12 **Focus Area Work Package:** D&D of Weapons Components Fabrication Facilities

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
FRHAM-TEX Anti Contamination Suit		
FRHAM-TEX Anti Contamination Suit		
NuFab Anti Contamination Suit		
NuFab Anti Contamination Suit		
Personal Ice Cooling System (PICS)		
Personal Ice Cooling System (PICS)		
Sealed-Seam Sack Suit		
Sealed-Seam Sack Suit		
Wireless Remote Monitoring System		

Technology Needs

Wireless Remote Monitoring System

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Site Need Code: RF-DD09

Site Need Name: Improved Decontamination of Porous Surfaces in Preparation for Building Demolition

Focus Area Work Package ID: DD-13 **Focus Area Work Package:** Oversized Metallic TRU Waste Disposition

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Biodegradation of Concrete		
Biodegradation of Concrete		
Biodegradation of Concrete		
2-D Linear Motion System		
2-D Linear Motion System		
2-D Linear Motion System		
Rotary Peening with Captive Shot		
Rotary Peening with Captive Shot		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Needs

Rotary Peening with Captive Shot

Centrifugal Shot Blast System

Centrifugal Shot Blast System

Centrifugal Shot Blast System

Concrete Shaver

Concrete Shaver

Concrete Shaver

Remotely Operated Scabbling

Remotely Operated Scabbling

Remotely Operated Scabbling

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Needs

Site Need Code: RF-DD10

Site Need Name: Improved Decontamination of Non-Porous Building Property and Structures

Focus Area Work Package ID: DD-12 **Focus Area Work Package:** D&D of Weapons Components Fabrication Facilities

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Laser Surface Cleaning		
Laser Surface Cleaning		
Laser Surface Cleaning		
CORPEX Nuclear Decontamination Process		
CORPEX Nuclear Decontamination Process		
CORPEX Nuclear Decontamination Process		
Soda Blasting Decontamination Process		
Soda Blasting Decontamination Process		
Soda Blasting Decontamination Process		
Laser Decontamination and Recycle of Metals		
Laser Decontamination and Recycle of Metals		
Laser Decontamination and Recycle of Metals		
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT		
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT		
Removal of Contaminants from Equipment and Debris, and Waste Minimization Using TECHXTRACT		
Portable Concentrator for Processing Plutonium Contaminated Solutions		
Portable Concentrator for Processing Plutonium Contaminated Solutions		

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Needs

Portable Concentrator for Processing Plutonium Contaminated Solutions

Steam Vacuum Cleaning

Steam Vacuum Cleaning

Steam Vacuum Cleaning

Soft Media Blast Cleaning

Soft Media Blast Cleaning

Soft Media Blast Cleaning

Advanced Recyclable Media System

Advanced Recyclable Media System

Advanced Recyclable Media System

Decontamination and Volume Reduction System (DVRS)

Decontamination and Volume Reduction System (DVRS)

Decontamination and Volume Reduction System (DVRS)

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Needs

Site Need Code: RF-DD11

Site Need Name: Improved Size Reduction of Contaminated Equipment and Demolition Waste

Focus Area Work Package ID: NMFA-03 **Focus Area Work Package:** Untitled (pending title by FA)

Focus Area: PLUTOFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Laser Cutting and Size Reduction		
Laser Cutting and Size Reduction		
Laser Cutting and Size Reduction		
High Speed Clamshell Pipe Cutter		
High Speed Clamshell Pipe Cutter		
High Speed Clamshell Pipe Cutter		
Oxy-Gasoline Torch		
Oxy-Gasoline Torch		
Oxy-Gasoline Torch		
Self Contained Pipe Cutting Shear		
Self Contained Pipe Cutting Shear		
Self Contained Pipe Cutting Shear		
Decontamination and Volume Reduction System (DVRS)		
Decontamination and Volume Reduction System (DVRS)		
Decontamination and Volume Reduction System (DVRS)		
Hand Held Shear		

Technology Needs

Hand Held Shear

Hand Held Shear

Innovative Size Reduction Nibblers

Innovative Size Reduction Nibblers

Innovative Size Reduction Nibblers

Innovative Size Reduction Shears

Innovative Size Reduction Shears

Innovative Size Reduction Shears

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N

Site Need Code: RF-DD15

Site Need Name: Real-Time Beryllium Surface Characterization

Focus Area Work Package ID: DD-12 **Focus Area Work Package:** D&D of Weapons Components Fabrication Facilities

Focus Area: DDFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate

Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats** Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site** HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Needs

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N
	01388: ER-04C - Sorted D&D TRU	Y	N
	01389: ER-04D - Sorted D&D Uncontaminated to Disposal	Y	N
	01387: ER-04B - Sorted D&D LLM	Y	N
	01386: ER-04A - Sorted D&D LLW	Y	N
	01390: ER-04E - Sorted D&D HAZ to Disposal	Y	N
	01391: ER-04F - Sorted D&D to On Site Placement	Y	N

Site Need Code: RF-IF01

Site Need Name: Improved Computer-Based Training Platforms

Focus Area Work Package ID:

Focus Area Work Package:

Focus Area:

Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate

Technology Needs

Site Need Code: RF-WM12

Site Need Name: Bulk Debris Characterization Techniques

Focus Area Work Package ID: MW-01

Focus Area Work Package: Nondestructive Characterization for Treatment, Transportation, and Disposal of MLL and MTRU Waste.

Focus Area: MWFA

Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	01385: ER-04 - D&D Waste (HAZ, LLW, MLLW, TRU/MTRU, Uncontam)	Y	N

Technology Deployments

		Deployment Year		
Deployment Status		**Planned**	**Forecast**	**Actual Date**
Technology Name:	Proximity Sensor System Development			
Potential Deployment		2000		
Technology Name:	Oxy-Gasoline Torch			
Potential Deployment		1999		
Potential Deployment		2000		
Technology Name:	Three Dimensional Mapping Sensor and Modeling Software			
Potential Deployment		2000		
Technology Name:	Personal Ice Cooling System (PICS)			
Potential Deployment		2000		

Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Rocky Flats**

Print Date: **3/9/2000**

Site Summary Level: **Rocky Flats Environmental Technology Site**

HQ ID: **0359**

Project **RF018 / Building 771/774 Cluster Closure Project**

Technology Deployments

	Deployment Year		
Deployment Status	**Planned**	**Forecast**	**Actual Date**
Technology Name: Automated Shipping Container Unpacking System			
Potential Deployment	2000		
Technology Name: Remote Control Concrete Demolition System			
Potential Deployment	2000		
Technology Name: Plasma Arc Torch w/Enhanced Fume Control			
Potential Deployment	2000		
Technology Name: "Birdcage"			
Potential Deployment	1999		
Technology Name: SRS LSDDP - Robotic Shear			
Potential Deployment	2000		
Technology Name: RFETS D&D Initiative - Enhanced Cutting Tools			
Potential Deployment	1999		
Technology Name: FY98 ASTD Crimper Cutter			
Potential Deployment	1999		